

## **Meeting #1 Summary – Draft**

### **Project Stakeholders Committee**

#### **Summary Attachment**

### **Questions/Comments on the Draft GHG Emissions Inventory and Forecast (I&F)**

#### **Transportation Sector**

Q: Is the new fuel efficiency standard for diesel included in the draft I&F?

A: No, this was not in the baseline – we will do an additional “scoring out” to adjust. There is a question of how much this new federal action adds to California’s existing Pavley standards.

Q: Emission projections seem larger than the expected population increase. Why?

A: SCAG provided a new 2012 Regional Transportation Plan vehicle miles traveled (VMT) forecast that was used then to forecast the emissions for the on-road sector. This sector accounts for the majority of the growth in the transportation sector. Further analysis is needed to understand differences in the emissions growth forecast for the transportation sector as compared to population growth for the SCAG region.

Q: How are bio-fuels accounted for; is it a life-cycle analysis (LCA)?

A: The inventory does not use life-cycle emissions to be consistent with EPA and ARB methods. It reflects emissions activity that occurs within the SCAG region; upstream emissions from the production of bio-fuels would be included in the inventory for the area in which the activity occurs.

Q: Are there limitations associated with using state-level fuel consumption data to adjust EMFAC model outputs for the SCAG region?

A: CCS noted an area of uncertainty with the on-road inventory for the SCAG region. Fuel consumption values estimated by EMFAC (ARB emission factor model) differ from actual historical fuel consumption data, so EMFAC outputs were adjusted to reflect state-level fuel consumption data using ARB's state inventory method. However, the historical VMT provided by SCAG differs from EMFAC's default VMT data for SCAG counties. Therefore, there is some uncertainty associated with the fuel consumption projections. Also, forecasts were not adjusted to account for increasing usage of ethanol, CNG, and LPG; although, EMFAC does account for an increasing proportion of electric vehicles. These uncertainties should be considered as areas for improving the I&F for the SCAG region during the process.

CCS also noted that the aircraft emissions estimated for the SCAG region are higher than in-state aircraft emissions estimated by ARB due to differences in methodologies. For the SCAG region, airport-specific data were used to develop the inventory. It was noted that the ARB

aviation I&F includes only intra-state flights, which are only a small portion of total flights in California. The SCAG I&F includes not only emissions associated with the landing and takeoff portion of flights, but includes all flights (intrastate, interstate, and international).

Q: Questions were asked about the level of detail at which the emissions were prepared for diesel buses, electricity used for rail transportation, and to support assessment of policies in general for the movement of goods.

A: Emissions were prepared by fuel for on- and non-road diesel vehicles. Further analysis will be needed to break-out emissions associated with diesel fuel consumption by buses, trucks, and other types of transportation vehicles. The level at which the breakout will be needed will be determined by the policies that the PSC will ultimately select for analysis. Once the policies are identified, additional detailed data to support policy analysis will be identified. Emissions associated with the generation of the electricity consumed by all sectors, including the transportation sector, are included in the electricity supply sector. If the PSC identifies a policy that requires the comparison of emissions associated with electric rail versus other modes of transportation emission factors will be identified to support this type of analysis.

A participant suggested breaking out goods movement from other types of transportation. There was a strong emphasis on noting relationship between warehousing and transportation of goods.

A participant noted that UCLA has county-by-county breakdown on fuel purchases.

#### Electricity Supply Sector

Q: What is the energy intensity assumed?

A: This will vary by sector and information on this can be reported within the TWG meetings or at the next PSC meeting.

Q: Point was reiterated that the use of state-wide data for SCAG region is not helpful, because the source mix is so different.

A: Power-plant-specific data were available for CO<sub>2</sub> emissions for 2000, 2004, and 2005, and methane and nitrous oxide emissions for 2005, from the US EPA's Emissions & Generation Resource Integrated Database (eGRID). These data undergo extensive quality assurance (QA) review by EPA. However, data for other years covering the 1990 to 2008 period are either not available from eGRID or have not undergone EPA's QA review process. Therefore, assumptions were used to estimate emissions back to 1990 using the eGRID data. Information from an ARB forecast was used to prepare the forecast for the SCAG region, and an ARB emission factor for a composite fuel mix was used to estimate emissions associated with electricity imported and consumed within the SCAG region. If PSC and TWG members have data for specific years for which EPA eGRID data were not available the inventory can be improved.

There was general agreement that the SCAG-specific historical data could be identified through the utilities servicing the SCAG region and that the assumptions for the forecast should be reviewed.

### Residential, Commercial, and Industrial (RCI) Direct-Fuel Use Sectors

A participant from the International Warehouse Association said they could provide data from their members on the heating/cooling for their buildings. This type of data contribution from PSC members will be very helpful.

### Industrial Processes Sector

Q: What about future changes in industry?

A: Industrial growth is captured in the emissions forecast for this sector. For the draft I&F, emissions associated with the direct use of fuels by the industrial sector are projected using the Energy Information Administration's (EIA) Annual Energy Outlook (AEO) for the Pacific Region that incorporates forecasts of industrial growth. Emissions associated with industrial processes for the non-fuel use sector are forecast based on employment or historical emissions growth (explained in detail in the draft I&F report). Growth assumptions for the individual industries within the industrial sector will be further evaluated by the PSC and TWGs and revised as recommended by the TWG and approved by the PSC during the process.

A participant commented that these unique gases are sometimes used in production of electronic equipment. We need to be aware of the importance of which sectors the jobs are in. For example, a semi-conductor job expands into an estimated half a million dollars in the local economy. There is not proportionality between the GHG reduction and the economic impacts, so sensitivity to the related economic factors is necessary to make GHG reductions in the right places.

### Waste Management Sector

Q: The emissions for the recycling and waste sector look very high, why is that?

A: The comment is noted and the PSC and TWG will be requested to review the data and methods used to estimate emissions for this category during the PSC process.

A participant noted that the Hyperion WWT plant is recycling water and a tire plant in Terminal Island waste is sequestering carbon.

### Forestry Sector

Q: A PSC member noted that the region includes U.S. Forest Service Lands – over which counties have no control and asked if both are included?

A: CCS believes it does include federal lands. The forestry acreage data were supplied by SCAG. We will check with SCAG to verify the ownership of the forest lands included in the data.

Q: How much of the carbon flux is from growth versus land conversion?

A: This will require more analysis and comparisons of carbon stocks.

Q: Are we using the same baseline as ARB in AB 32?

A: This is a decision for the PSC. The draft I&F discussed today is separate from the development of the policy options the PSC will be working on over the next 9 months. It is meant as an information tool to start the discussion. Over the next couple months the PSC will decide what baseline to use and what data to include in the final I&F.